Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A communication protocol converter comprising:

        (a) a first modular communication jack having:

                i) a housing defining an open cavity and a segregated interior chamber;

                ii) a connector port having a plurality of electrical contacts positioned within said open cavity;

                iii) at least one circuit board incorporating Ethernet to raw data conversion circuitry components for a first communication protocol disposed within said interior chamber in electrical communication with the electrical contacts of said connector port wherein the circuitry components are positioned on both sides of the at least one circuit board; and

                iv) a memory positioned on said circuit board in electrical communication with said conversion circuitry for a first communication protocol for receiving converted data whereby the memory is interconnected to a bi-directional data line that allows the input and output of raw data;

        (b) a second modular communication jack having:

                i) a housing defining an open cavity and a segregated interior chamber;

                ii) a connector port having a plurality of electrical contacts positioned within said open cavity;

                iii) at least one circuit board incorporating Ethernet to raw data conversion circuitry components for a second communication protocol disposed within said interior chamber in electrical communication with the electrical contacts of said connector port;

                iv) a memory positioned on said circuit board in electrical communication with said conversion circuitry for said second communication protocol for receiving converted data wherein the memory is interconnected with the bi-directional line to receive input of raw data from the first modular communication jack <u>and further wherein said memory stores data utilized by a controller block</u>;

                v) [[a]] <u>the</u> controller block in the form of a microprocessor which handles all the conversion between raw data and Ethernet, including processing of digital and analog signals, as

well as all of the required code protocol translations, said microprocessor utilizing embedded software to manipulate the data signal to provide data to magnetics wherein said controller block communicates with Ethernet through Ethernet interface; and

(c) a bidirectional data interface electrically interconnecting said memory of said first communication jack with said memory of said second communication jack.

2. (Original) The communication protocol converter of claim 1 wherein said first communication protocol is Internet protocol version 4 and said second communication protocol is Internet protocol version 6.

3. (Original) The communication protocol converter of claim 1 wherein said first communication protocol is Internet protocol version 6 and said second communication protocol is Internet protocol version 4.

4. (Original) The communication protocol converter of claim 1 wherein said conversion circuitry components of said first and second modular communications jacks includes magnetic circuitry and controller circuitry.

5. (Original) The communication protocol converter of claim 4 wherein said conversion circuitry components includes LED circuitry.

6. (Original) The communication protocol converter of claim 4 wherein said circuit boards each define first and second opposed sides and said conversion circuitry components are positioned on both first and second sides of said circuit boards.

7. (Currently Amended) A communication protocol converter comprising:

a housing defining first and second open cavities and a segregated interior chamber;

each of said open cavities incorporating a plurality of electrical contacts positioned within said open cavities to form first and second connector ports wherein said first connector port is adapted to interface with a first communication protocol and said second connector port is adapted to interface with a second communication protocol; and

at least one circuit board incorporating communication protocol conversion circuitry components disposed within said interior chamber in electrical communication with the electrical contacts of said first and second connector ports wherein said conversion circuitry bidirectionally translates communication protocols wherein the housing allows for the at least one circuit board to electronically communicate with both the first connector port and the second connector port; and

a microprocessor employing embedded software that receives Internet protocol 4 Ethernet data; removes the Internet protocol 4 header data, inserts Internet protocol 6 header data, recalculates the necessary Internet protocol header fields and outputs corresponding Internet protocol 6 Ethernet data, the embedded software located on flash memory which is utilized by the microprocessor to perform its functions.

8. (Original) The communication protocol converter of claim 7 wherein said protocol conversion circuitry comprises; a microprocessor incorporating embedded software for converting a first communication protocol received at said first connector port to a second communication protocol output to said second connector port.

9. (Original) The communication protocol converter of claim 8 wherein said microprocessor converts a second communication received at said second connector port to a first communication protocol output to said first connector port.

10. (Original) The communication protocol converter of claim 7 wherein said first communication protocol is Internet protocol version 4 and said second communication protocol is Internet protocol version 6.

11. (Original) The communication protocol converter of claim 7 wherein said first communication protocol is Internet protocol version 6 and said second communication protocol is Internet protocol version 4.

12. (Withdrawn) A method of converting Ethernet data from a Internet protocol 4 to Internet protocol 6 comprising the steps of: (a) receiving Internet protocol 4 Ethernet data; (b) removing

Internet protocol 4 header data; (c) inserting Internet protocol 6 header data; (d) recalculating necessary Internet protocol header fields; (e) outputting corresponding Internet protocol 6 Ethernet data.

13. (Withdrawn) A method of converting Ethernet data from a Internet protocol 6 to Internet protocol 4 comprising the steps of: (a) receiving Internet protocol 6 Ethernet data; (b) removing Internet protocol 6 header data; (c) inserting Internet protocol 4 header data; (d) recalculating necessary Internet Protocol header fields and IPv4 checksum (e) outputting corresponding Internet protocol 4 Ethernet data.

14. (Withdrawn) A method of converting Ethernet data from a first communication protocol to a second communication protocol comprising the steps of: (a) receiving Ethernet data having a first communication protocol; (b) removing the first communication protocol header data; (c) inserting a second communication protocol header data; (d) recalculating any necessary protocol header fields and options; (e) outputting corresponding Ethernet data having a second communication protocol.